Dell Inc.

Dell Precision 690 (Intel Xeon 5160, 3.00 GHz)

SPECint®2006 = 18.1
SPECint_base2006 = 17.5

Hardware

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>CPU Name</td>
<td>Intel Xeon 5160</td>
</tr>
<tr>
<td>CPU Characteristics</td>
<td>1333 MHz Bus Speed</td>
</tr>
<tr>
<td>CPU MHz</td>
<td>3000</td>
</tr>
<tr>
<td>FPU</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled</td>
<td>2 cores, 1 chip, 2 cores/chip</td>
</tr>
<tr>
<td>CPU(s) orderable</td>
<td>1.2 chips</td>
</tr>
<tr>
<td>Primary Cache</td>
<td>32 KB I + 32 KB D on chip per core</td>
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<tr>
<td>Secondary Cache</td>
<td>4 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Cache: L3</td>
<td>None</td>
</tr>
<tr>
<td>Other Cache</td>
<td>None</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB (8x1 GB 667 MHz ECC CL5 DDR2 FB-DIMM)</td>
</tr>
<tr>
<td>Disk Subsystem</td>
<td>1 x 72 GB SAS 10K RPM</td>
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<tr>
<td>Other Hardware</td>
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Software

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Operating System</td>
<td>Windows XP Professional x64 Edition</td>
</tr>
<tr>
<td>Compiler</td>
<td>Intel C++ Compiler 9.1 for IA32 (20061103Z)</td>
</tr>
<tr>
<td>Microsoft Visual Studio</td>
<td>2005</td>
</tr>
<tr>
<td>Auto Parallel</td>
<td>No</td>
</tr>
<tr>
<td>File System</td>
<td>NTFS</td>
</tr>
<tr>
<td>System State</td>
<td>Default</td>
</tr>
<tr>
<td>Base Pointers</td>
<td>32-bit</td>
</tr>
<tr>
<td>Peak Pointers</td>
<td>32-bit</td>
</tr>
<tr>
<td>Other Software</td>
<td>MicroQuill SmartHeap Library 8.0</td>
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</table>
SPEC CINT2006 Result

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Dell Precision 690 (Intel Xeon 5160, 3.00 GHz)

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CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base Seconds</th>
<th>Ratio</th>
<th>Peak Seconds</th>
<th>Ratio</th>
<th>Base Seconds</th>
<th>Ratio</th>
<th>Peak Seconds</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>400.perlbench</td>
<td>456</td>
<td>21.4</td>
<td>455</td>
<td>21.5</td>
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<td>413</td>
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<td>401.bzip2</td>
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<td>16.0</td>
<td>602</td>
<td>16.0</td>
<td>602</td>
<td>16.0</td>
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<td>403.gcc</td>
<td>608</td>
<td>13.2</td>
<td>608</td>
<td>13.2</td>
<td>609</td>
<td>13.2</td>
<td>587</td>
<td>13.7</td>
<td>586</td>
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<td>429.mcf</td>
<td>459</td>
<td>19.9</td>
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<td>19.9</td>
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<td>19.9</td>
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<tr>
<td>456.hmmer</td>
<td>744</td>
<td>12.5</td>
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<td>458.libquantum</td>
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<td>17.9</td>
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<tr>
<td>462.libquantum</td>
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<td>16.5</td>
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<td>16.7</td>
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<tr>
<td>464.h264ref</td>
<td>703</td>
<td>31.5</td>
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<tr>
<td>471.omnetpp</td>
<td>464</td>
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<td>430</td>
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<td>473.astar</td>
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<td>490</td>
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<td>492</td>
<td>14.3</td>
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<td>492</td>
<td>14.3</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>337</td>
<td>20.5</td>
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<td>20.5</td>
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<td>20.4</td>
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<td>339</td>
<td>20.4</td>
</tr>
</tbody>
</table>

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

General Notes

BIOS Settings
Adjacent Cache Line Prefetch set to ON:
Prefetch data in order to shorten execution cycles and maximize data processing efficiency.

Snoop Filter set to OFF
Snoop Filter preserves cache coherency while minimizing snoops to remote nodes.

32-bit binaries were built on Windows XP Professional x64 Edition

Base Compiler Invocation

C benchmarks:
icl -Qc99

C++ benchmarks:
icl

Base Portability Flags

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32

Continued on next page
SPEC CINT2006 Result

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Dell Precision 690 (Intel Xeon 5160, 3.00 GHz)

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Test date: Jan-2007
Hardware Availability: May-2006
Software Availability: Jan-2007

Base Portability Flags (Continued)

483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Base Optimization Flags

C benchmarks:
-fast /F512000000 shlW32M.lib -link /FORCE:MULTIPLE

C++ benchmarks:
-fast -Qcxx_features /F512000000 shlW32M.lib
-link /FORCE:MULTIPLE

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks:
iocl -Qc99

C++ benchmarks:
iocl

Peak Portability Flags

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Peak Optimization Flags

C benchmarks:
400.perlbench: ONESTEP -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast
/F512000000 shlW32M.lib -link /FORCE:MULTIPLE
401.bzip2: basepeak = yes

Continued on next page
SPEC CINT2006 Result

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Peak Optimization Flags (Continued)

403.gcc: Same as 400.perlbench

429.mcf: ONESTEP -fast /F512000000 shlW32M.lib
- link /FORCE:MULTIPLE

445.gobmk: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast /F512000000
shlW32M.lib - link /FORCE:MULTIPLE

456.hmmer: basepeak = yes
458.sjeng: Same as 400.perlbench

C++ benchmarks:

471.omnetpp: ONESTEP -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast
-Qcxx_features /F512000000 shlW32M.lib
- link /FORCE:MULTIPLE

473.astar: Same as 471.omnetpp

483.xalancbmk: ONESTEP -fast -Qcxx_features /F512000000 shlW32M.lib
- link /FORCE:MULTIPLE

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/dell.cpu2006.ic91.flags.20090715.xml
### SPEC CINT2006 Result

Dell Inc.

**Dell Precision 690 (Intel Xeon 5160, 3.00 GHz)**

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For questions about this result, please contact the tester.  
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.0.  
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